Rogue Gold Forest Management Project

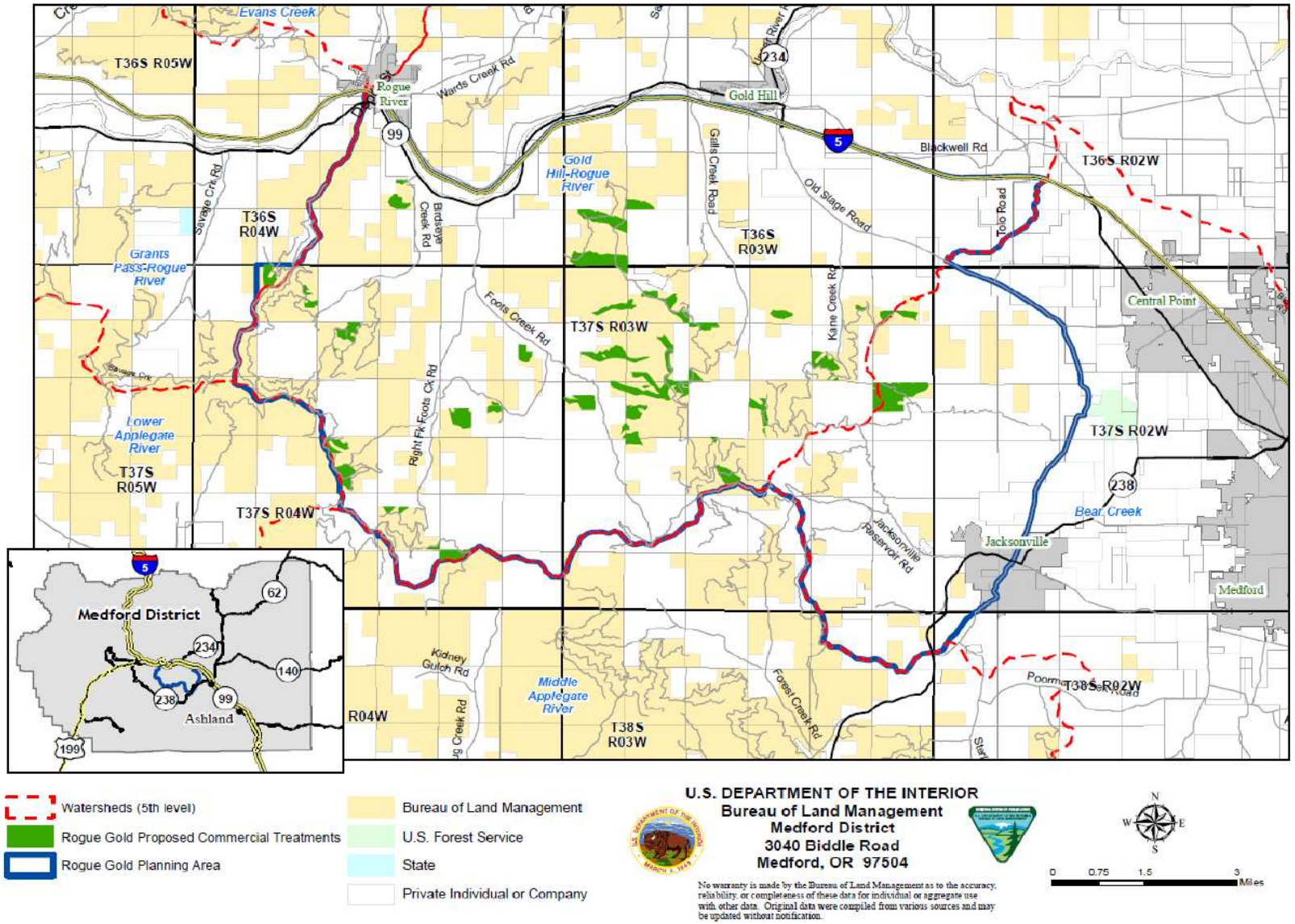

Figure A-1. Project Overview Map

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Project Elements Within Action Alternatives

Proposed timber harvests, treatment prescriptions, treatment of activity fuels, various types of roadwork, and timber haul all occur within action alternatives though the type and amount may differ by alternative (Table 2-1).

2.1.6.1 Commercial Harvest

Commercial harvest operations involve pairing various methods of felling timber and skidding or yarding it to a landing. This project proposes the use of both manual and mechanized felling, ground-based skidding, and both cable and helicopter yarding. Commercial treatments would occur as selection harvest in HLB-UTA, LSR-Dry, and DDR, or as commercial thinning in DDR-TPCC in RR-Dry. Under all alternatives and in all LUAs, BLM would retain all trees in the stand that are >36 inches and established prior to 1850 except where falling is necessary for safety or operational reasons and no alternative harvesting method is economically viable or practically feasible. If such trees need to be cut for safety or operational reasons, retain cut trees in the stand.

- HLB-UTA: Within the UTA, integrated vegetation management includes the use of a combination of vegetation treatments and fuels management activities. Activities include selection harvest, group selection harvest, and prescribed fire (to reduce activity fuels) SWO ROD/RMP (BLM 2016a, pp. 68-69). BLM would not create group selection openings on more than 30 percent of the stand area (p. 68).

- LSR-Dry: Lands designated as LSR-Dry LUA would use integrated management treatment activities identified in the SWO ROD/RMP. Integrated vegetation management includes the use of a combination of vegetation treatments and fuels management activities. Activities could include commercial stand thinning, selection harvest (single tree selection or group selection harvest), snag creation, and prescribed fire (to reduce activity fuels). All treatments would retain the required ground cover, snags and canopy cover metrics listed in the SWO ROD/RMP (BLM 2016a, pp. 70-75). The BLM would not create group selection openings on more than 25 percent of the LSR stand area (p. 72). The BLM would ensure gap sizes do not exceed the maximum level identified, based on stand size, in the SWO ROD/RMP (BLM 2016a, p. 72). Under Alternatives 3 and 4 the Rogue Gold FMP would maintain NSO NR habitat. The BLM would defer timber harvest treatments in NSO NR habitat under Alternative 2.

- RR-Dry: Within lands designated as Riparian Reserve -Dry, commercial treatments would consist of commercial stand thinning would only occur in the outer zone and middle zone of non-fish bearing and intermittent streams that are class I sub watersheds that are adjacent to timber harvest units where merchantable timber is accessible. Under all alternatives treatments would retain 60 trees per acre across the treated portion within each of the RR-Dry stands and maintain a canopy cover of 30% within stands under all alternatives consistent with the SWO ROD/RMP (BLM 2016a, pp.82-84).

- DDR: Maintain the values and resources for which the BLM has reserved these areas from sustained-yield timber production SWO ROD/RMP (pg. 54). Maintain roads and facilities by removing hazard trees and blowdown. Such logs may be retained as down woody material, moved for placement in streams for fish habitat restoration, or removed through a commercial harvest or special forest products sale.

- DDR-TPCC: Manage areas identified as unsuitable for sustained yield timber production through the timber production capability classification system, for other uses are compatible with the reason for which the BLM has reserved these lands SWO ROD/RMP (BLM 2016a, pg. 55)

3.1.8.1 Assumptions

The stand modeling applied several assumptions to the treated and untreated stands:

- Outside influences that could occur in the future (e.g., mortality from insects/disease, fire, windthrow, or new land management policies) were not included because these were unknown and impossible to predict.
- Stands were modeled to include artificial regeneration of ponderosa and sugar pine at 5 and 10 years post treatment accounting for regeneration that contributes towards layering.
- The BLM modeled only one single entry of selection harvest during the analysis timeframe (2023-2123). No additional understory small diameter thinning, or prescribed fire treatments were applied to the stand modeling. The PRMP/FEIS "modeling team modeled the application of a combination of group selection (patch cut) harvests and thinning to various stand components at intervals of 40-50 years, depending on site productivity" (2016 PRMP/FEIS, BLM 2016b p. 1196).
- Skips and group selection openings would be factored into the overall residual relative density at the stand level. At least 10 percent of the stand would be in skips and no more than 25 percent of the stand would be in group selection openings (BLM 2016a, p. 72) in stands that are 10 acres or greater in size.

3.1.8.2 Summary of Analytical Methods

As described above, the BLM used stand metrics such as canopy cover, basal area, tree size, trees per acre, and canopy layering to describe and define NSO habitat. Habitat elements, such as tree DBH, canopy cover, basal area, and large tree DBH metrics are available in FVS and BLM used them to analyze this issue because they are important habitat elements to predict spotted owl use. As noted in the Medford Integrated Vegetation Management (IVM) EA, Appendix 6, in southwestern Oregon nesting-roosting habitat are conifer stands with a multi-layered, multispecies canopy dominated by large conifer overstory trees, canopy cover ≥ 60 percent, overstory tree diameter of >21 inches DBH, >12 trees with 20 inches or greater DBH trees/acre, quadratic mean diameter (QMD) >15 DBH, basal area from 180 to 240 feet^2/acre (most often greater than 240 feet^2/acre), and a basal area from larger trees of > 30 feet^2 for trees > 26 inches DBH (USDI 2022, Appendix 6). The BLM would use these metrics to determine when the analyzed stands would develop into nesting-roosting habitat after treatment, compared to no treatment. The effects descriptions below summarize the ability of the treatments to improve the development of nesting-roosting habitat, while ensuring the treatments would not delay the development of NR habitat by 20 years, as directed in the 2016 ROD/RMP.

3.1.9 Affected Environment

There are approximately 463 acres of LSR LUA on BLM-administered lands within the Rogue Gold FMP. Within these, an estimated 267 acres of habitat are in stands conductive to habitat development and persistence (i.e. cool bottom and midslope topographic positions and high RHS). Current NSO habitat conditions in these stands are 33 acres of NR habitat and 234 acres of non-NR habitat (foraging, dispersal-only, capable, or non-habitat). (Table 3-11)

Table 3-11: Acres of High-RHS Spotted Owl Habitat in the Rogue Gold project LSR-Dry Treatment Area

	Nesting-Roosting	**Foraging**	**Dispersal-Only**	**Capable/Non-Habitat**
Pre-treatment Acres	33 acres	161 acres	71 acres	2 acres

The 234 acres of high RHS non-NR habitat mentioned above currently function as foraging, dispersal-only, or non-habitat and do not display the characteristics of spotted owl nesting-roosting habitat (Appendix D, Table D-1). These stands lack the diversity, structure, layering, large trees, higher canopy

Nesting-Roosting Target Conditions	**≥ 60%**	**180-240ft²**	**≥ 21”**	**≥ 15”**	**≥ 12**	**≥ 30ft²**
Current Condition	68	252	19.4	14.5	13.8	28ft²
No Treatment NR conditions met in 2043	68	290	21	16.6	56	55ft²
Alternative 3 Treatment NR conditions met in 2043	60	234	20	16.3	42	41ft²

3.1.10.4 Alternative 4

Under Alternative 4, the proposed action in the LSR LUA would thin stands to a relative density range of 20-45 percent. The range of RD treatments in Alternative 4 would be used to meet the varying objectives across the project area. In stands where the objective is to speed the development of NR and not preclude or delay the development by 20 years or more, the prescriptions would include a target RD on the higher end of the range to meet that criteria. The tables below represent the stands modeled with a target relative density of 35 percent (Tables 3-15 a and b). To demonstrate the range of proposed RD treatments in Alternative 4, stands were also modeled with a target RD of 20 percent and the results are included in the temporal results summary below (Table 3-16). The two modeled stands treated with a target of 20 and 35 percent RD did not reach target nesting-roosting canopy cover conditions within 20 years of the No Treatment model, although the target conditions for basal area, overstory mean diameter, QMD, and large trees per acre were eventually met.

Table 3-15a: FVS Stand Metrics for Unit 27-1 Modeled to Nesting-Roosting Conditions with Alternative 4 Compared to No Treatment

Unit 27-1 Foraging	**Canopy Cover (%)**	**Basal Area (ft²)**	**Overstory Mean Diameter**	**Quadratic Mean Diameter**	**Trees > 20” DBH/Acre**	**Basal Area Trees ≥ 26” DBH**
Nesting-Roosting Target Conditions	**≥ 60%**	**180-240ft²**	**≥ 21”**	**≥ 15”**	**≥ 12**	**≥ 30ft²**
Current Condition	57	202	26.4	10.8	37.9	89ft²
No Treatment NR conditions met in 2073	58	342	25	15.9	43	107ft²
Alternative 4 Treatment 2073	57	222	26	12.7	28	60ft²
Alternative 4 Treatment NR conditions met in 2098	58	246	30	15.1	43	88ft²

Table 3-15b: FVS Stand Metrics for 31-4 Modeled to Nesting-Roosting Conditions with Alternative 4 Compared to No Treatment

Unit 31-4 Foraging/Dispersal Mix with Nesting	**Canopy Cover (%)**	**Basal Area (ft²)**	**Overstory Mean Diameter**	**Quadratic Mean Diameter**	**Trees > 20” DBH/Acre**	**Basal Area Trees ≥ 26” DBH**
Nesting-Roosting Target Conditions	**≥ 60%**	**180-240ft²**	**≥ 21”**	**≥ 15”**	**≥ 12**	**≥ 30ft²**
Current Condition	68	252	19.4	14.5	13.8	28ft²
No Treatment NR conditions met in 2043	68	290	21	16.6	56	55ft²
Alternative 4 Treatment 2043	55	196	21	12.8	37	37ft²
Alternative 4 Treatment NR conditions met in 2068	59	226	22	15.5	45	47ft²

3.1.10.5 Summary of Alternatives

The two representative stands modeled with Alternative 2 treatments (45 percent RD) obtained nesting-roosting conditions within 20 years or less of the No Treatment model. All stands modeled to Alternative 3, with a target relative density of 40 percent, achieved nesting-roosting conditions within 20 years of the No Treatment model. Stands modeled to Alternative 4 with a target RD of 20 and 35 percent did not achieve nesting-roosting conditions, particularly target canopy cover, within 20 years of the No Treatment model (Table 3-16).

Table 3-16: Temporal summary of units modeled by alternative in terms of achieving minimum nesting roosting habitat conditions (years post-treatment)

Treatment Unit	Alternative 1 (No Action)	Alternative 2 (RD 45%)	Alternative 3 (RD 40%)	Alternative 4 (35% RD) *	Alternative 4 (RD 20%) *
Minimum Nesting-Roosting Habitat Conditions Met (years post-treatment)					
Unit 27-1	50 years	50 years	70 years	75	100 years
Unit 31-4	20 years	20 years	20 years	45	>100 years

*Alternative 4 includes a target RD range between 20-40%. Stands were modeled at both 20% and 30% for Alt 4 to demonstrate treatment variance.

3.1.11 Cumulative Effects

Additional small diameter thinning and fuels treatments could occur in the project area, such as those proposed in the upcoming foreseeable IVM River Hill Natural Fuels Reduction Project (Appendix D). In stands where the purpose is developing or maintaining nesting-roosting habitat, key habitat elements and habitat function would be retained.

The BLM Medford District assumes past management practices on private lands would continue. The BLM anticipates some loss of NSO habitat on private lands, but cannot predict the rate of loss, types of NSO habitat affected, or the specific location of harvest. The BLM does not track private land harvest activity. Harvest activities on state and private lands can be expected to impact NSOs located within adjacent federal lands by removing and fragmenting habitat and through disturbance activities adjacent to occupied sites during sensitive periods. The Oregon Forest Practices Act Rules (OAR 629-665-0210) protects NSO nest sites (70-acre core areas) for at least three years after the last year of occupation The Rogue Gold FMP would treat up to 484 acres of LSR habitat, of which 69 acres would be nesting-roosting treatment. Habitat function would be maintained for treatments in nesting-roosting habitat within LSR and as described above, the prescriptions would put non-nesting-roosting habitat on the trajectory of developing nesting-roosting habitat in the future.

The 2016 PRMP/FEIS considered the overall net change in habitat function to NSO habitat of implementing the Proposed RMP, which also includes commercial harvest in the HLB for providing for a sustained supply of timber (USDI 2016a, pp. 928-998). When added to the present and future foreseeable actions, including commercial timber harvest on HLB, the BLM concluded in the 2016 PRMP/FEIS, to which this EA is tiered, that implementation of the Proposed RMP as a whole would contribute to a landscape that supports large blocks of NSO habitat that are capable of supporting clusters of reproducing NSO, distributed across a variety of ecological conditions and spaced to facilitate NSO movement between the blocks (BLM 2016ba, pp. 932-941). Those analyses and findings are incorporated here by reference. This is also consistent with the Biological Opinion for the Western Oregon RMP, which predicted that thinning in the LSR and other reserve LUAs would benefit spotted owls by increasing the speed of development of spotted owl habitat compared to not managing these types of stands (USFWS 2016, p. 605). The U.S. Fish and Wildlife Service confirmed in their Biological Opinion (BO) on the 2016 ROD/RMP that these analyses are a reasonable approach to assessing NSO habitat change in the